

**Final Draft: Guidance for TMDL Implementation Plan Development for Urban/Rural Residential Land
Uses within the Coastal Nonpoint Management Area (June 2012)**

EPA/NOAA Comments July 2012

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- The CZARA new development measure pertains only to reducing post-development TSS loadings by 80% or reducing TSS loadings so that the average annual TSS loads are no greater than predevelopment loadings and maintaining post-development peak runoff rate and average volume to pre-development levels. It does not include riparian protection or erosion and sediment control BMPs which are also listed among the recommended BMPs for addressing the new development MM in the narrative and in Table 2 (pg. 16) in this document. Therefore, the sections and table that discuss the recommended BMPs for meeting the CZARA new development MM requirements need to be revised accordingly. Also reference the appropriate appendices¹
- Since the targeted audience for this document is DMAs and they do not need to know the specifics of this MM, you could remove Section 1.5.2.3 CZARA Section 6217 (pp 14-16) out of this document and make a separate document that includes Section 1.5.2.3 CZARA Section 6217 and the appendices or appropriate parts of the appendices pertaining to this management measure (or reference them). This document could be provided to EPA/NOAA as a way to document Oregon’s addressing this MM. Alternatively, you could include Section 1.5.2.3 CZARA Section 6217 (pp 14-16) and all appendices¹ pertaining to this MM as one appendix. Both of these alternatives may make this document less confusing for the DMAs.
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Appendix N & O--Examples of Stormwater Management Ordinance, Model Post Construction Stormwater Runoff Control Ordinance; and the appropriate BMPs for this measure under Appendix P--Implementation and Effectiveness Monitoring by Pollutant.

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approaches and they must specify how they will measure effectiveness and put in place provisions if the voluntary measures do not work. While this approach will meet the new development MM, the stormwater discussion and requirements are scattered throughout the guidance. To reiterate, it would be much more useful to DMAs if all the requirements related to stormwater are captured in one clearly-labeled section so that DMAs will not need to hunt throughout the document. This will also reduce the opportunity for the DMAs to overlook these requirements.

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- Pg. 25 2.1.4. & Pg. 115 3. Reasonable Assurance: Reasonable assurance (RA) means that when a TMDL is developed for waters impaired by both point and nonpoint sources (NPS), and the WLA is based on an assumption that NPS load reductions will occur, the TMDL should provide reasonable assurances that NPS control measures will achieve expected load reductions. EPA recommends the following elements in demonstrating reasonable assurance:
 1. **Quantification of LA and WLA:** Does the TMDL clearly describe the analytical process used for calculating both the LA and the WLA(s)? In particular, for the LA, does the TMDL explain the process used to estimate the current NPS load by sector, and the assumptions that were applied to estimate the expected NPS reductions by sector (e.g., type of BMPs, how many will be applied, their pollutant reduction efficiencies, etc.). For the WLAs, does the TMDL assign specific allocations to individual or categories of sources and explain the extent to which those WLAs are expected to be implemented in permits?
 2. **Linkage of WLA to LA:** A fundamental statutory and regulatory principle of TMDLs is that the aggregate sum of the WLAs, when added to the aggregate sum of the LAs, must not exceed the assimilative capacity of the water body. Are the assumptions regarding how the WLA was calculated clearly explained? For example, is there a discussion of whether the WLA was based on the assumption that the LA would be achieved over time based on a schedule of NPS implementation, achievement of milestone measures, etc? Does the TMDL include an “assumption” that a permit based on a WLA might be reopened to include a more stringent WQBEL if attainment of nonpoint source load allocations was not achieved consistent with the TMDL’s reasonable assurance assumptions?
 3. **Discussions of schedule and milestones to achieve LA:** It is difficult to ensure, a priori, that implementing nonpoint source controls will achieve expected load reductions. Nonpoint source control measures may fail to achieve projected pollution load reductions due to inadequate selection of BMPs (practices not applicable to a particular watershed), inadequate design or implementation, or lack of full participation by all contributing sources of nonpoint pollution. Does the TMDL provide an overall schedule for implementation of nonpoint source controls along with an adaptive management procedure for reviewing key milestone progress and revising BMPs, if necessary, to meet the TMDL target loads?
 4. Discussion of monitoring and tracking approach to evaluate progress: The key objective for documenting load reduction goals and review procedures is to establish a rational procedure

for site-specific evaluation of waterbodies with significant nonpoint source pollution loads. Does the TMDL indicate that the State is prepared to develop and implement a monitoring and reduction tracking system in order to facilitate adjustments to the initial set of BMP assumptions and to track the progress of NPS control implementation?

5. Discussion of follow-up actions: Does the TMDL describe potential follow-up actions under state, local, or federal law, e.g., possibility of more stringent permit limits or more effective NPS controls, and when they would occur, if there is insufficient progress in the expected NPS control implementation?

- Pg. 27 under 2.1.8: Include a description of adaptive management. Consider this one from Washington Department of Ecology: “Natural systems are complex and dynamic. The way a system will respond to human management activities is often unknown and can only be described as probabilities or possibilities. Adaptive management involves testing, monitoring, evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings. In the case of TMDLs, adaptive management is used to assess whether the actions identified as necessary to solve the identified pollution problems are the correct ones and whether they are working. Adaptive management allows us to fine-tune our actions to make them more effective, and to try new strategies if we have evidence that a new approach could help us to achieve compliance. Partners will work together to monitor progress towards these goals, evaluate successes, obstacles, and changing needs, and make adjustments to the implementation strategy as needed.”
- Pg. 29 under 2.2.1 and 2.2.4.2 & pg. 123: Are DMAs “expected” or “required” to implement and review/revise the implementation plan every 5 years? If it is “required”, as suggested in the third paragraph on pg. 30 and on pg. 123 under 5-Year Implementation Plan Review, then make it clear that the DMAs are “required” to...
- Pg. 30 under “Step 5”: Define Class II violation.
- Pg. 33: Be sure to include monitoring to track progress toward meeting water quality standards.
- Pp 35-37 & pp 59-61 information provided on these pages is identical. Figure 4 (pg. 13) & Figure 15 (pg. 65) are the same and similar information is provided on pg. 12 and pp 63-64.
- Pg. 76 (3.11.2.3, Ordinances Recommended to Meet CZARA New Development MMs): Only the Post-Construction Stormwater ordinance is appropriate for meeting the CZARA new development requirements. The other ordinances satisfy other CZARA MM requirements, but not those for new development and should therefore be removed from the list.
- Pg. 81 Table 12: Column titled “CZARA Measure and TMDL Listed Pollutant” is misleading as what is under this column is not CZARA measures and in some cases such as “hydrology” not a TMDL listed pollutant. Perhaps a better title for this table would be “Impairment”.
- Pg. 121 under Performance Monitoring: Where is monitoring to track progress towards meeting water quality standards shown?

- Pg. 151 (Appendix F): Many of Oregon's waterbodies are listed for temperature impairments, but this list of BMPs does not include BMPs to address temperature. NOAA and EPA recommend that Oregon include BMPs to address temperature impacts.
- Pg. 160 (and others as appropriate, Appendix G): Adopting a stormwater ordinance is a good performance BMP, but the ordinance should not just be to maintain runoff volumes approximately the same as pre-development rates, but also to control TSS (80% reduction per 6217 (g) measure requirements).
- Appendix G & H: "Hydrology Volume Reduction" is not a TMDL listed pollutant. Perhaps it would be better to label this column "Impairment" as it includes both pollutants (temperature) and pollution (hydrology)
- Pg. 164 (Appendix G): Adopting stormwater controls consistent with (g) guidance is needed for all DMAs in the 6217 management area. So, why is adopting a stormwater control ordinance that controls water quality and sediment included only as a recommended BMP for controlling sediment? Shouldn't it be a recommended BMP for all pollutants? Developing a stormwater management plan as described in this appendix is not sufficient. NOAA and EPA prefer that Oregon state that the plan requires specific actions to control and treat sediment-laden runoff from new and redevelopment consistent with the (g) guidance.
- Pg. 233 (Appendix O): Please rewrite the lead-in paragraph to remove the limitation of this model ordinance just to communities that need to meet NPDES requirements. Since all DMAs need to include stormwater controls in their Implementation Plans, this ordinance would be useful for all DMAs within the 6217 management area, regardless of whether or not they have to comply with NPDES regulations.

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Comment [Don1]: I’m not a fan of adding footnotes to these comments. Suggest we make the footnote its own comment.

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 3. **Discussions of schedule and milestones to achieve LA:** It is difficult to ensure, a priori, that implementing nonpoint source controls will achieve expected load reductions. Nonpoint source control measures may fail to achieve projected pollution load reductions due to inadequate selection of BMPs (practices not applicable to a particular watershed), inadequate design or implementation, or lack of full participation by all contributing sources of nonpoint pollution. Does the TMDL provide an overall schedule for implementation of nonpoint source controls along with an adaptive management procedure for reviewing key milestone progress and revising BMPs, if necessary, to meet the TMDL target loads?
 4. Discussion of monitoring and tracking approach to evaluate progress: The key objective for documenting load reduction goals and review procedures is to establish a rational procedure

for site-specific evaluation of waterbodies with significant nonpoint source pollution loads. Does the TMDL indicate that the State is prepared to develop and implement a monitoring and reduction tracking system in order to facilitate adjustments to the initial set of BMP assumptions and to track the progress of NPS control implementation?

5. Discussion of follow-up actions: Does the TMDL describe potential follow-up actions under state, local, or federal law, e.g., possibility of more stringent permit limits or more effective NPS controls, and when they would occur, if there is insufficient progress in the expected NPS control implementation?

- Pg. 27 under 2.1.8: Include a description of adaptive management. Consider this one from Washington Department of Ecology: “Natural systems are complex and dynamic. The way a system will respond to human management activities is often unknown and can only be described as probabilities or possibilities. Adaptive management involves testing, monitoring, evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings. In the case of TMDLs, adaptive management is used to assess whether the actions identified as necessary to solve the identified pollution problems are the correct ones and whether they are working. Adaptive management allows us to fine-tune our actions to make them more effective, and to try new strategies if we have evidence that a new approach could help us to achieve compliance. Partners will work together to monitor progress towards these goals, evaluate successes, obstacles, and changing needs, and make adjustments to the implementation strategy as needed.”
- Pg. 29 under 2.2.1 and 2.2.4.2 & pg. 123: Are DMAs “expected” or “required” to implement and review/revise the implementation plan every 5 years? If it is “required”, as suggested in the third paragraph on pg. 30 and on pg. 123 under 5–Year Implementation Plan Review, then make it clear that the DMAs are “required” to...
- Pg. 30 under “Step 5”: Define Class II violation.
- Pg. 33: Be sure to include monitoring to track progress toward meeting water quality standards.
- Pp 35-37 & pp 59-61 information provided on these pages is identical. Figure 4 (pg. 13) & Figure 15 (pg. 65) are the same and similar information is provided on pg. 12 and pp 63-64.
- Pg. 76 (3.11.2.3, Ordinances Recommended to Meet CZARA New Development MMs): Only the Post-Construction Stormwater ordinance is appropriate for meeting the CZARA new development requirements. The other ordinances satisfy other CZARA MM requirements, but not those for new development and should therefore be removed from the list.
- Pg. 81 Table 12: Column titled “CZARA Measure and TMDL Listed Pollutant” is misleading as what is under this column is not CZARA measures and in some cases such as “hydrology” not a TMDL listed pollutant. Perhaps a better title for this table would be “Impairment”.
- Pg. 121 under Performance Monitoring: Where is monitoring to track progress towards meeting water quality standards shown?

- Pg. 151 (Appendix F): Many of Oregon's waterbodies are listed for temperature impairments, but this list of BMPs does not include BMPs to address temperature. NOAA and EPA recommend that Oregon include BMPs to address temperature impacts.
- Pg. 160 (and others as appropriate, Appendix G): Adopting a stormwater ordinance is a good performance BMP, but the ordinance should not just be to maintain runoff volumes approximately the same as pre-development rates, but also to control TSS (80% reduction per 6217 (g) measure requirements).
- Appendix G & H: "Hydrology Volume Reduction" is not a TMDL listed pollutant. Perhaps it would be better to label this column "Impairment" as it includes both pollutants (temperature) and pollution (hydrology)
- Pg. 164 (Appendix G): Adopting stormwater controls consistent with (g) guidance is needed for all DMAs in the 6217 management area. So, why is adopting a stormwater control ordinance that controls water quality and sediment included only as a recommended BMP for controlling sediment? Shouldn't it be a recommended BMP for all pollutants? Developing a stormwater management plan as described in this appendix is not sufficient. NOAA and EPA prefer that Oregon state that the plan requires specific actions to control and treat sediment-laden runoff from new and redevelopment consistent with the (g) guidance.
- Pg. 233 (Appendix O): Please rewrite the lead-in paragraph to remove the limitation of this model ordinance just to communities that need to meet NPDES requirements. Since all DMAs need to include stormwater controls in their Implementation Plans, this ordinance would be useful for all DMAs within the 6217 management area, regardless of whether or not they have to comply with NPDES regulations.